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FISHES OF THE TRIBUTARIES OF THE ANACOSTIA RIVER,  
MARYLAND

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A survey of the fish fauna of the tributaries of the Anacostia River system in Maryland was carried out during the fall of 1948 and continued through the summer of 1949. The investigation of the eight major tributaries was begun to determine the fish fauna since the work of Smith and Bean (1899). Truitt, Bean, and Fowler (1929) record many species from Prince Georges and Montgomery Counties, but they specify no particular streams.

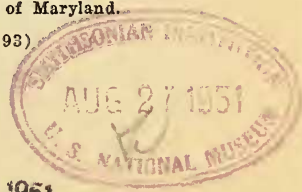
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The Anacostia River Drainage System covers parts of Prince Georges and Montgomery Counties, Maryland, and comprises an area of about 93 square miles. The tributaries flow in a general north to south direction, bounded on the north and east by the Patuxent River Drainage, and on the west by the Rock Creek Drainage. The Anacostia ultimately flows into the Potomac River near the southern boundary of Washington, D. C.

Twenty-five stations were established along the tributaries and each was visited at least three times. Six of these stations were situated above the Fall Line. For the most part the streams in the Coastal Plain were sluggish, averaging twenty feet in width and one to two feet in depth, with a rate of flow of about two feet per second. Except for the head-water stations, there was a noticeable amount of silt in all of the streams. In the vicinity of the more heavily populated areas, such as College Park, and Hyattsville, sewage was plainly evident.

Collections of fish were made by seining with 25 foot and 15 foot,  $\frac{1}{4}$  inch mesh seines. The fish were deposited in formalin in the field and later sorted in the laboratory for identification.

<sup>1</sup>The work was accomplished by the Senior author in partial fulfillment for a Master of Science Degree at the Department of Zoology, University of Maryland.



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At each station physical data, such as width, depth, rate of flow, gradient, air and water temperature were taken. The water temperature did not fluctuate more than 7° F. from the air temperature at any time, and did not become sufficiently cold to warrant the inclusion of cold-water fish, such as trout.

Chemical data included: hydrogen ion concentration, conductivity, and amount of dissolved oxygen in the water. The pH varied from 6.3 to 7.2, while the oxygen varied from 2 cc to 7.3 cc per liter. None of the chemical or physical factors studied seemed to exclude completely or aid in the distribution of the population of fishes.

The following specimens were recorded and deposited in the collection of the Department of Zoology of the University of Maryland.

1. *Entosphenus lamottenii* (LeSueur).—American Brook Lamprey. Specimens were collected on sandy-bottomed streams at three widely separated stations.
2. *Pomolobus pseudoharengus* (Wilson).—Alewife. One dead specimen was recovered at Riverdale, March 29, 1949. Reports of many more specimens being fished were gathered at College Park.
3. *Catostomus commersonnii commersonnii* (Lacepede).—Common White Sucker. This species was collected at almost every station in various stages of growth or size.
4. *Hypentelium nigricans* (LeSueur).—Hog Sucker. A number of juveniles were collected during the summer in the headwaters of various tributaries.
5. *Erimyzon oblongus oblongus* (Mitchill).—Eastern Creek Chubsucker. A single specimen was taken in the muddy backwater of Indian Creek.
6. *Cyprinus carpio* Linnaeus—Carp. Carp were particularly common in the muddy backwaters of Northeast and Paint Branch.
7. *Semotilus corporalis* (Mitchill).—Fallfish. This species was widely distributed at almost half of the stations, the majority of the specimens taken being juvenile.
8. *Semotilus atromaculatus atromaculatus* (Mitchill).—Northern Creek Chub. Relatively common in the clear upper waters of several of the tributaries.
9. *Rhinichthys atratulus atratulus* (Hermann).—Eastern Blacknose Dace. The dace were numerous at almost all of the stations in moderately moving currents.
10. *Exoglossum maxillingua* (LeSueur).—Cutlips. Commonly distributed in the tributaries of Northeast Branch.
11. *Clinostomus vandoisulus* (Cuvier and Valenciennes). Red-sided Dace. Present in headwaters of the various tributaries in large numbers, especially in deep pools in winter.
12. *Notemigonus crysoleucas crysoleucas* (Mitchill).—Eastern Golden Shiner. Present mainly in lower sluggish tributaries, where they were extremely abundant.
13. *Notropis rubellus* (Agassiz).—Rosyface Shiner. This species was present mainly in the lower reaches of Northwest Branch.

14. *Notropis cornutus cornutus* (Mitchill).—Eastern Common Shiner. Over 450 specimens were collected under a wide variety of conditions, being present at almost every station.
15. *Notropis hudsonius amarus* (Girard).—Eastern Spottail Shiner. Specimens were collected in moderate numbers in sluggish pools of the lower portions of the tributaries.
16. *Notropis analostanus* (Girard).—Satinfin Shiner. This species was widely distributed, over 500 specimens being collected.
17. *Notropis procne procne* (Cope).—Northern Swallowtail Shiner. This species was associated with the preceding species in large numbers and was taken at almost every station.
18. *Hybognathus nuchalis regius* (Girard).—Eastern Silvery Minnow. This species was occasionally observed in quiet, turbid waters in the lower portions of the tributary waters.
19. *Ameiurus nebulosus nebulosus* (LeSueur).—Northern Brown Bullhead. Taken occasionally in lower tributaries.
20. *Schilbeodes marginatus marginatus* (Baird).—Common Eastern Madtom. Found only in upper headwaters of Northwest Branch.
21. *Schilbeodes mollis* (Hermann).—Tadpole Madtom. Recorded by Bean and Weed (1911) in Little Beaver Dam Branch, Anacostia River.
22. *Umbra pygmaea* (DeKay).—Eastern Mud Minnow. Found only in the quiescent pools of Northwest Branch among growths of aquatic vegetation. This species was usually associated with *Esox niger*.
23. *Esox niger* (LeSueur).—Chain Pickerel. Found in quiet pools among luxuriant growth of aquatic vegetation.
24. *Anguilla bostoniensis* (LeSueur).—American Eel. Taken occasionally in a variety of habitats in the lower portions of the tributaries.
25. *Fundulus heteroclitus macrolepidotus* (Walbaum).—Mummichog. Numerous at the junction of the Northeast and Northwest Branches.
26. *Gambusia affinis holbrooki* (Girard).—Eastern Mosquitofish. A single specimen was taken near the bridge of the East-West highway in the Northwest Branch.
27. *Boleosoma nigrum olmstedii* (Storer).—Tessellated Johnny Darter. Widely distributed at almost all stations having a sandy bottom and moderate current.
28. *Ioa vitrea* (Cope).—Glassy Darter. Fowler (1945) records two specimens from Northwest Branch, Anacostia River, Hyattsville, Maryland, exchange from the U. S. National Museum.
29. *Pomoxis nigro-maculatus* (LeSueur).—Black Crappie. Several specimens were taken at Northeast Branch at Riverdale Road.
30. *Lepomis cyanellus* (Rafinesque).—Green Sunfish. Widely distributed in rocky situations, although not numerous.
31. *Lepomis gibbosus* (Linnaeus).—Pumpkinseed. Taken only at Branchville in Indian Creek in quiet turbid pools of water.
32. *Lepomis macrochirus macrochirus* (Rafinesque).—Common Bluegill. Taken in the more sluggish tributaries of Northeast Branch.

33. *Lepomis auritus* (Linnaeus). Yellowbelly Sunfish.  
A single specimen was taken in a small pool in Northeast Branch  
at Riverdale.

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